

ABSTRACT

Methods, apparatus, and other mechanisms are disclosed for merging lookup results, such as from one or more associative memory banks and/or memory devices. An access list is identified. A first set of entries corresponding to a first feature of the access control list entries and a second set of entries corresponding to a second feature of the access control list entries are identified. First and second associative memory banks are programmed respectively based on the first and second sets of entries. Lookup operations are then typically performed substantially simultaneously on the first and second sets of associative memory entries programmed in the associative memory banks to generate multiple lookup results, with these results typically being identified directly, or via a lookup operation in an adjunct memory or other storage mechanism. These lookup results are then combined to generate a merged lookup result.

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